

Appl. No.: 09/693,5112  
Amdt. dated 12/09/2004  
Reply to Office action of 07/09/2004

Amendments to the Claims:

1. (Currently Amended) A network gateway device capable of providing location-based identification to network subscribers, comprising:

a processor that communicates with an access concentrator to receive ~~one or more~~ a plurality of port identifiers assigned by the access concentrator and wherein each port identifier is associated with a location-specific connection port that provides connection for one or more ~~host~~ hosts of ~~one or more~~ hosts, the processor further determines ~~one or more~~ which of the location-specific connection ports are currently accessing the network-by associating each of the ~~one or more~~ received port identifiers with ~~one or more~~ a location-specific connection port ports; and

a database associated with the network gateway device that stores the ~~one or more~~ location-specific connection port ports for the purpose of identifying one or more hosts associated with the connection port that have been granted network authorization.

2. (Canceled)

3. (Original) The network device of Claim 1, wherein the processor uses VLAN protocol as a communication link between the processor and the access concentrator.

4. (Currently Amended) The network device of Claim 1, wherein the processor further comprises a querying agent capable of requesting transmission of ~~one or more~~ the plurality of port identifiers from the associated access concentrator.

5. (Original)) The network device of Claim 4, wherein the querying agent uses Simple Network Management Protocol (SNMP) as the communication link between the network device and the access concentrator.

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6. (Original) The network device of Claim 4, wherein the querying agent uses Extensible Markup Language (XML) as the communication link between the network device and the access concentrator.

7. (Currently Amended) A method for implementing location-based identification in a communications network, comprising the steps of:

establishing network connections between a plurality of hosts and a network,  
wherein each host is connected to the network at a location-specific, connection port;

~~transmitting data packets from each of the hosts through a location-specific,~~  
~~connection port;~~

identifying the location-specific, connection port of each of the hosts at an access concentrator by assigning one of a plurality of port identifier identifiers that is mapped to ~~the~~ a location of the connection port;

communicating the port identifier to a network gateway device;

storing the port identifier in a database in communication with the network gateway device, the database maps the port identifier to one or more hosts associated with the connection port, and

identifying, at the network gateway device, one or more hosts that have been granted network authorization based upon port identifiers that are currently stored in the database.

8. (Currently Amended) The method of Claim 7, wherein identifying the location-specific, connection port of each of the hosts at an access concentrator further comprises tagging the data packets being sent from each host with one of a plurality of port identifiers identifier at an access concentrator.

9. (Previously Presented) The method of Claim 8, wherein communicating the port identifier to a network gateway device further comprises transmitting the tagged data packets to a network gateway device.

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10. (Currently Amended) The method of Claim 8, wherein tagging the data packets being sent from each host with one of a plurality of port identifiers ~~identifier~~ further comprises tagging the data packets being sent from each host with one of a plurality of port identifiers ~~identifier~~ that corresponds to a media access control (MAC) address.

11. (Currently Amended) The method of Claim 8, wherein tagging the data packets being sent from each host with one of a plurality of port identifiers ~~identifier~~ includes implementing the use of VLAN protocol.

12. (Canceled)

13. (Previously Presented) The method of Claim 7, wherein the step of communicating the port identifier to a network gateway device further comprises the steps of:  
transmitting a port requesting query from the network gateway device to an access concentrator; and  
transmitting a port identifying response from the access concentrator to the network gateway device.

14. (Previously Presented) The method of Claim 13, wherein transmitting a port requesting query from the network gateway device further comprises transmitting a SNMP (Simple Network Management Protocol) query.

15. (Previously Presented) The method of Claim 13, wherein transmitting a port requesting query from the network gateway device further comprises transmitting a XML (Extensible Markup Language) query.

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16. (Original) The method of Claim 13, wherein transmitting a port identifying response further comprises transmitting a port identifier that corresponds with a media access control (MAC) address.

17. (Canceled)

18. (Previously Presented) A method for using location-based identification in a communications network, comprising:  
accessing a database in communication with a network gateway device to identify one or more connection ports within a communications network that are currently mapped to a port identifier; and  
applying results of the identification to a network system application.

19. (Canceled)

20. (Previously Presented) The method of Claim 18, further comprising executing the network system application at the network gateway device.

21. (Previously Presented) The method of Claim 18, wherein applying results of the identification to a network system application further comprises applying the identified one or more connection ports to a network billing application that bills subscribers based on location.

22. (Previously Presented) The method of Claim 18, wherein applying results of the identification to a network system application further comprises applying the identified one or more connection ports to an authorization application that provides authorization to network subscribers based on location.

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23. (Previously Presented) The method of Claim 18, wherein applying the results of the identification to a network system application further comprises applying the identified one or more of connection port to determine port-specific information that will be communicated to a connection port.